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SELECTED TRANSLATIONS OF  
ABSTRACTS IN REFERATIVNYY ZHURNAL - BIOLOGIYA, No. 6, 1959

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SELECTED TRANSLATIONS OF  
ABSTRACTS IN REFERATIVNYY ZHURNAL - BIOLOGIYA, No. 6, 1959

This report consists of complete translations of the Russian-language abstracts of articles, which were originally published in the Sino-Soviet bloc and in Yugoslavia.

The Soviet subject classification system used in the original Russian language abstracts has been followed in this publication.

USSR / Microbiology. General Microbiology. Physiology F  
and Biochemistry.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 23894

Author : Ruban, Ye. L.  
Inst : Academy of Sciences USSR  
Title : Synthesis of Vitamins in Cultures of  
Nitrosomonas Europaea

Orig Pub : Dokl. AN SSSR, 1958, 120, No 1, 193-194

Abstract : The addition to the silicate jelly culture medium of Winogradsky of vitamins B<sub>1</sub>, B<sub>6</sub>, biotin, pantothenic and nicotinic acids, inosite, PABA, riboflavin, and ascorbic acid, each separately or in various combinations, did not stimulate the accumulation of biomass of Nitrosomonas europaea; it also did not increase the intensity of NO<sub>2</sub> accumulation in

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USSR / Microbiology. General Microbiology. Physiology F  
and Biochemistry.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 23894

the cultures of this micro-organism. Autolysates of the bacteria contain some amounts of vitamin B<sub>1</sub>, biotin, inosite, vitamin B<sub>6</sub>, nicotinic and pantothenic acids, since they sustain the growth of yeasts which need these vitamins in the cultivation of the yeasts on vitamin-free media. In the presence of Co in the medium, Nitrosomonas synthesize vitamin B<sub>12</sub> in the amount of 0.00325 μ/mg. -- G. M. Shavlovskiy

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POLAND / Microbiology. General Microbiology. Physiology F  
and Biochemistry.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 23897

Author : Smyk, Boleslaw

Inst : Not given

Title : The Investigation of Lactobacilli. I. The  
Influence of Various Growth Factors

Orig Pub : Roczn. nauk rolniczych, 1957, B71, No 2,  
301-312

Abstract : Extracts of alfalfa, lupine, malt and liver  
extracts, pantothenic acid, and nicotinic acid  
amide stimulated most actively the formation  
of lactic acid by lactobacilli. Vitamins and  
extracts of alfalfa, lupine, and malt sprouts  
induced an activating influence on the bacilli  
which were found in silo (*Lactobacillus*

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and Biochemistry.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 23897

arabinosus, *L. leichmannii*, *Streptobacterium*  
*plantarum*). On homoenzymal thermophyle  
bacteria, such as *Thermobacterium lactis*, *Th.*  
*helvetica*, *Th. bulgaricum*, and *Streptococcus*  
*thermophilus*, liver extract, yeast extract,  
and extract of cattle manure also act. --  
From the author's resume

Card 2/2

GDR / Microbiology. General Microbiology. Physiology F  
and Biochemistry.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 23905

Author : Emanuiloff, I.; Natscheff, L.; Veltscheva, P.  
Inst : Not given  
Title : Investigation of Bacteria That Synthesize  
Vitamin B<sub>12</sub>

Orig Pub : Dokl. Bolg. AN, 1957, 10, No 4, 325-329

Abstract : The ability to synthesize vitamin B<sub>12</sub> (I) was studied in 2 strains of *Bacillus mesentericus*, in *B. megatherium*, *B. alcaligenes*, *B. mycoides*, *B. coli commune* and *Clostridium sporogenes*, which were grown on a medium prepared from wheat bran and potatoes. I in the medium was determined by means of *Euglena gracilis* var. *bacillaris*. The most active

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GDR / Microbiology. General Microbiology. Physiology F  
and Biochemistry.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 23905

producer of I turned out to be one of the strains of *B. mesentericus*. The maximum accumulation of I was assured by a medium which consisted of equal amounts of bran and potatoes, as well as by an oats medium with the addition of mineral salts. The bacterium synthesized cyanocobalamin as well as pseudovitamin B<sub>12</sub>, which was determined chromatographically. The addition of a medium on which bacteria were cultivated into the feed of chicks stimulated their growth. -- G. M. Shavlovskiy

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BULGARIA / Microbiology. General Microbiology.  
Physiology and Biochemistry.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 23906  
Author : Emanuilov, Ign.; Nachev, L.; Velcheva, P.  
Inst : Microbiological Institute  
Title : Investigation of Bacteria That Synthesize  
Vitamin B<sub>12</sub>  
Orig Pub : Izv. Mikrobiol. in-t, Bolg. AN, 1958, kn. 9,  
73-83  
Abstract : See Previous Abstract

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BULGARIA / Microbiology. General Microbiology.  
Physiology and Biochemistry.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 23907  
Author : Grigorov, Iv.  
Inst : Microbiological Institute  
Title : Investigation of the Ability of Actinomyces,  
Isolated from Various Types of Manure, to  
Form Vitamin B<sub>12</sub>  
Orig Pub : Izv. Mikrobiol. in-t, Bolg. AN, 1958, kn. 9,  
153-159  
Abstract : 21 strains of actinomyces, isolated from  
manure, were grown on a medium with CoNO<sub>3</sub>.  
By means of Euglena gracilis, vitamin B<sub>12</sub>  
was discovered in the culture fluid of all  
strains. The amount of the vitamin in the  
medium is directly proportional to the amount

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Physiology and Biochemistry.

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Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 23907

of biomass built up. -- From the authors'  
resume

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GDR / Microbiology. General Microbiology. Physiology  
and Biochemistry.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 23918

Author : Haenel, H.

Inst : Not given

Title : Microbiological Determination of Vitamins

Orig Pub : Die Nahrung, 1958, 2, No 4, 362-370

Abstract : Descriptions of microbiological methods of  
determination of vitamins of group B are  
cited. The utilized test-organisms and the  
composition of nutrient media for cultivation  
of strains and determination of vitamins are  
listed.

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BULGARIA / Microbiology. General Microbiology.  
Physiology and Biochemistry.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 23926  
Author : Mitev; Pashev; Kharizanova; Lambrev; Beshkov  
Inst : Microbiological Institute  
Title : Influence of Various Factors on Biosynthesis  
of L-Ascorbic Acid by Mold Fungi  
Orig Pub : Izv. Mikrobiol. in-t, Bolg. AN, 1957, 8,  
209-221

Abstract : No abstract given

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USSR / Microbiology. General Microbiology. Physiology F  
and Biochemistry.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 23929D  
Author : Trifonova, Z. V.  
Inst : Moscow Veterinarian Academy  
Title : The Influence of Carbohydrate and Vitamin  
Nutrition on Cultural-Morphological and Toxic  
Properties of the Fungus Stachybotrys  
alternans  
Orig Pub : Avtoref. diss. kand. biol. n., Mosk. vet.  
akad., M., 1958

Abstract : No abstract given

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USSR / Microbiology. General Microbiology. Micro-  
organisms of Water and Air.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 23952

Author : Kuznetsov, S. I.  
Inst : Institute of Microbiology  
Title : The Basic Means of Formation of Calcium  
Carbonate Sediments in Sweet-Water Reservoirs  
and the Role of Microorganisms in this Process

Orig Pub : Tr. In-ta mikrobiol, AN SSSR, 1958, vyp 5,  
170-185

Abstract : Three types of processes were studied as a  
result of which the formation of  $\text{CaCO}_3$  sedi-  
ments in natural reservoirs with participation  
of bacteria is possible. To the first type  
belong reservoirs with alkaline water, similar  
to Lake Sevan, where sedimentation of  $\text{CaCO}_3$

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USSR / Microbiology. General Microbiology. Micro-  
organisms of Water and Air.

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Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 23952

takes place by precipitation from a saturated  
solution. In this case the role of bacteria  
in the calcite sedimentation is small. In  
reservoirs of the second type, an example of  
which is Lake Belovod', this process is con-  
ditioned by the activity of sulfate-reducing  
bacteria, which accomplish the restoration of  
 $\text{CaSO}_4$  in  $\text{CaS}$ , and calcite is formed secondarily  
by interaction of the latter with carbon  
dioxide. In reservoirs of the third type,  
to which Lake Viysyaagu (Estonia) may be  
referred, calcite is deposited as a result  
of decomposition of calcium humate by bacteria.  
In all studied cases, the participation of  
bacteria in the formation of a sediment of

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organisms of Water and Air.

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Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 23952

calcium carbonate is adapted to the silt de-  
posits and is absent in the water mass. --

V. A. Lambina

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USSR / Microbiology. General Microbiology. Micro-  
organisms of Water and Air.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 23953

Author : Sorokin, Yu. I.

Inst : Not given

Title : The Role of Chemo-synthesis in the Production  
of Organic Substances in Water Reservoirs.  
II. The Study of Chemo-synthesis in Silt  
Deposits by Means of Cl<sup>4</sup>

Orig Pub : Mikrobiologiya, 1958, 27, No 2, 206-213

Abstract : The amount of organic substance of bacterial  
biomass newly formed every 24 hours in silts  
(Skh) was determined by the more precise method  
of the author (RZhBiol., 1956, 43583, 1957,  
40154) according to the following formula:

$$Skh = \frac{r \cdot Sk \cdot 100}{R \cdot P \cdot n} \text{ ml of carbon per liter of}$$

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organisms of Water and Air.

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Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 23953

silt in 24 hours, where P is the volume of silt (ml), n is the time of incubation (24 hours); Sk is the content of CO<sub>2</sub> in the silt, r is the radioactivity of the newly-formed organic substance of bacteria biomass, and R is the radioactivity of Na<sub>2</sub>C<sub>14</sub>O<sub>3</sub> (number of impulses per min.) brought into the experiments. The examination of silts from the Rybinsky, Gor'kovsky and Kuybyshevsky water reservoirs showed that the greatest amount of Skh (3-6 ng C l. in 24 hr.) is found in fresh silts of new water reservoirs. The temperature coefficient of chemo-synthesis under conditions near natural, Q<sub>10</sub> = 1.6-1.9. The speed of chemo-synthesis increases several

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organisms of Water and Air.

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Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 23953

times with the addition to silts of easily assimilated organic substances (glucose, calcium lactate and sodium formate) under anaerobic conditions. Under aerobic conditions, these additions do not influence essentially the value of chemo-synthesis, i.e., in silts this process is related energetically with the anaerobic decomposition of organic substance. -- A. S. Razumov

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USSR / Microbiology. General Microbiology. Micro-  
organisms of Water and Air.

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Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 23954

Author : Kriss, A. Ye.  
Inst : Institute of Microbiology  
Title : The Microbe Population of the Ocean in the  
Area of the North Pole

Orig Pub : Tr. in-ta Mikrobiol., AN SSSR, 1958, vyp 5,  
186-198

Abstract : The problem of the existence of bacterial life  
in the Central Arctic, in the depths of the  
Arctic Ocean under the polar pack ice, away  
from the direct influence of continental or  
island run-offs, is being solved. Investiga-  
tions were conducted on drifting scientific  
stations at almost every depth. Their number

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organisms of Water and Air.

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Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 23954

fluctuated from 35 to several thousand cells  
per one l. In the vertical direction, a  
noticeably expressed micro- and macrozonality  
of distribution of their numbers was observed.  
The amount of heterotrophic bacteria in the  
surface layers of the ocean was considerably  
higher in July tests than in September tests.  
Heterotrophic microorganisms are basically  
represented by staff-form, non-sporogenous  
forms. Coccii, sporogenous bacteria and yeasts  
are also found. Data on general numerousness  
of microorganisms along an entire vertical of  
the ocean in the area of the North Pole in  
July and September are cited. The biomass of  
microbe cells in the upper layers of the ocean

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organisms of Water and Air.

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Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 23954

composes the units of  $\text{mg/m}^3$  of water, falling  
with the depth to hundredths and thousandths  
of  $\text{mg/m}^3$ . The 24-hour increase of the biomass  
of microorganisms is 12-72%. In 1 g of natural  
silt, from 4 to 304 mil. of microbe cells were  
contained. -- V. A. Lambina

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organisms of Water and Air.

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Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 23955

Author : Kriss, A. Ye.

Inst : Not given

Title : Microbiology and Problems of the Black Sea

Orig Pub : Priroda, 1958, No 6, 43-48

Abstract : No abstract given

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USSR / Microbiology. General Microbiology. Geological F  
Activity.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 23958

Author : Isachenko, B. L.  
Inst : Institute of Microbiology  
Title : On the Genesis of Sulfur Beds

Orig Pub : Tr. In-ta mikrobiol. AN SSSR, 1958, vyp 5,  
18-23

Abstract : Proceeding from the contemporary concepts of  
the role of microorganisms in biochemical  
processes of sulphur rotation in nature, the  
author cites deliberations on the possible  
significance of these processes during the  
far-removed geological periods of Earth's  
history and in the formation of deposits of  
sulphur-containing rocks and crystalline sul-  
phur. -- V. A. Lambina

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USSR / Microbiology. General Microbiology. Geological F  
Activity.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 23959

Author : Ivanov, M. V.  
Inst : Not given  
Title : The Participation of Microorganisms in the  
Formation of Sulphur Deposits in Shor-Su

Orig Pub : Mikrobiologiya, 1957, 26, No 5, 544-550

Abstract : From sulphur-hydrogen waters occurring below  
the petroleum layer of the Shor-Su formation,  
desulfurizing bacteria have been isolated.  
The ability of these bacteria to form H<sub>2</sub>S was  
proven by means of sulfate stained for sulphur.  
Desulfurizing bacteria were discovered in all  
the investigated sulphur-hydrogen waters. The  
intensity of sulfate-reduction induced by

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USSR / Microbiology. General Microbiology. Geological F  
Activity.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 23959

them reaches 0.179 mg H<sub>2</sub>S per one l. per day. In slimy sulphur-containing sediments which are located at places of contact of sulphur-hydrogen waters with O<sub>2</sub>, thiono acid bacteria of the type Thiobacillus thioparus were discovered. In some places the number of these bacteria reaches 100,000 cells per 1 cm<sup>3</sup> of sulphur deposits. It is assumed that microorganisms play an essential part in the process of accumulation of sulphur in the Shor-Su formation. -- G. I. Vorob'yeva

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USSR / Microbiology. General Microbiology. Geological F  
Activity.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 23960

Author : Ivanov, M. V  
Inst : Not given  
Title : The Utilization of Isotopes for Studying the Role of Microorganisms in the Formation of the Shor-Su Sulphur Formation

Orig Pub : V sb.: Izuch. zhivotn. organizma, M., AN SSSR, 1958, 247-253

Abstract : Into flasks with samples stained for sulphur, of hydrogen sulphide solutions from the cracks and drips of the Shor-Su mines, Na<sub>2</sub>SO<sub>4</sub> was introduced with an activity of 20-40 curie with the calculation of process intensity after 3-9 days according to the method of the author

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USSR / Microbiology. General Microbiology. Geological F  
Activity.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 23960

(RZhBiol., 1957, 85561). The computed intensity of the process was 0.009-0.179 H<sub>2</sub>S mg/l per day only in samples with living microflora (without addition of formalin) and those richer in organic substance (in petroleum layers). The intensity of oxidation of H<sub>2</sub>S and deposition of S was determined in similar flasks with a small volume of air over the samples of hydrogen sulphide solutions, into which Na<sub>2</sub>S<sup>35</sup> (activity 1-1.5 curie/l), was introduced, which were preserved under the conditions of the place of their selection. Biological oxidation (in samples without formalin) took place more intensively than did the chemical one (with addition of formalin) and had, in one drift, an

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Activity.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 23960

output of 2880 l per day and a content of 138 mg/l of H<sub>2</sub>S - 190 g of S per day. Thus, it is shown that the formation of H<sub>2</sub>S and deposition of S in the subsurface waters of sulphur and petroleum beds of Shor-Su, takes place with the participation of microorganisms. --  
A. S. Razumov

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USSR / Microbiology. General Microbiology. Geological F  
Activity.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 23962

Author : Kuznetsova, V. A.; Ashirov, K. B.; Gromovich,  
V. A.; Ovchinnikova, I. V.; Kuznetsov, S. I.

Inst Title : Not given  
: Experiment of Suppressing the Development of  
Sulfate Restoring Bacteria in a Petroleum  
Layer of Kalinovskiy Bed

Orig Pub : Mikrobiologiya, 1957, 26, No 3, 330-337

Abstract : A relation has been established between the presence of a great amount of H<sub>2</sub>S in a petroleum layer and the amount of sulfate-restoring bacteria. The activity of sulfate-restoring bacteria under the conditions of salty layer waters was proven, as well as their

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Activity.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 23962

utilization of petroleum as a source of organic substance. The addition of formalin (about 400 mg/l) to the water before tossing it into the well (Kalinovskiy Deposit, Kuybyshevskoy Oblast') led to the suppression of bacterial development in neighboring wells connected with the experimental well by a common flow of layer waters. By this, a real possibility for terminating bacterial formation of H<sub>2</sub>S was determined.

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USSR / Microbiology. General Microbiology. Geological F  
Activity.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 23963

Author : Kuznetsov, S. I.; Telegina, Z. P.

Inst : Not given

Title : Some Data on the Physiology of Propane Oxidizing  
Bacteria

Orig Pub : Mikrobiologiya, 1957, 26, No 5, 513-518

Abstract : From the subsoil floor of the various regions  
of Soviet Union, where microbiological searches  
for petroleum were being conducted, several  
pure cultures of propane oxidizing bacteria  
were isolated. Of four cultures, three were  
related to mycobacteria and one to p.  
*Pseudomonas*. The addition of glucose (experi-  
ments in a Warburg apparatus) before introduction

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Activity.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 23963

of propane increased the consumption of  $O_2$   
by 1.5-2 times as compared with endogenic  
respiration, while the addition of propane  
increased the consumption of  $O_2$  by 4-10 times.  
I.e., these bacteria, in the presence of  
propane, do not utilize the easily-oxidizing  
organic compounds. The propane oxidizing  
bacteria are able to absorb free  $CO_2$  (experi-  
ments with  $C^{14}O_2$ ) by the chemo-synthesis  
process; furthermore, oxidation of propane  
serves as the source of energy. It is  
assumed that propane oxidizing bacteria are  
reliable indicators of petroleum.

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USSR / Microbiology. General Microbiology. Geological F  
Activity.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 23964

Author : Mar, G. I.; Stasilevich, Z. K.

Inst : Karaganda Medical Institute

Title : Microbiological Characteristics of Mud from  
Lake Karasor

Orig Pub : Tr. Karanadinsk. med. in-ta, 1957, 1, No 8,  
527-528

Abstract : No abstract given

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HUNGARY / Microbiology. General Microbiology. F  
Geological Activity.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 23986

Author : Goreczky, Laszlo

Inst : Not given

Title : On the Bactericidal and Stimulating Action of  
Protein Serum Fractions on Bacteria

Orig Pub : Kiserl. orvostud., 1957, 9, No 5-6, 526-531

Abstract : Albumin, and, to a lesser degree, gamma-  
globulin, possess bactericidal action; beta-  
globulin stimulates the development of  
*Micrococcus aureus*.

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USSR / Microbiology. General Microbiology. Geological F  
Activity.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24007

Author : Malkov, A. M.; Suprunenko, A. I.

Inst : Not given

Title : The Influence of 2,4-Dinitrophenol on Aerobic  
Fermentation and Synthesis of Pyrophosphoric  
Compounds by Yeasts in the Process of Their  
Multiplication

Orig Pub : Mikrobiologiya, 1958, 27, No 1, 12-18

Abstract : The influence of 2,4-dinitrophenol on aerobic  
fermentation, respiration, content of pyro-  
phosphates ( $P_7$ ), and multiplication of pressed  
baker's yeast was investigated. 2,4-dinitro-  
phenol in a concentration of 0.0002-0.00002 M  
activates the fermentation and increases the

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Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24007

synthesis of phosphates rich in energy; higher  
concentrations act inhibitingly. Respiration  
is activated under a concentration of 0.00002  
M; 2,4-dinitrophenol separates the processes  
of fermentation and respiration from yeast  
multiplication, 0.0002 M delays, and higher  
concentrations suppress completely the process  
of yeast multiplication. It is assumed that  
the increase of synthesis of phosphates rich  
in energy under increased concentrations of  
2,4-dinitrophenol takes place by reversible  
action of pyrophosphatase enzymes. -- M. V.  
Fateyeva

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USSR / Microbiology. General Microbiology. Geological F  
Activity.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24012

Author : Sokolov, B. V.

Inst : Leningrad Chemical-Pharmaceutical Institute

Title : The Influence of Various Chemical Antiseptics  
on Yeast-Like Fungi of the Type Candida

Orig Pub : Sb. nauchn. tr. Leningr. khim. farmatsevt.  
in-t, 1957, 3, 178-182

Abstract : The action of the most common chemical antiseptics on 52 cultures of Candida was studied. Formalin proved to be the most active, after which, in order of decrease of activity, there follow: chloramine, copper sulfate, carbolic and boric acids. Fungicidal and fungistatic concentrations frequently coincide. The

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USSR / Microbiology. General Microbiology. Geological F  
Activity.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24012

resistance of various types is unequal; the most stable are C. krusei, the least - C. pseudotropicalis. The stability of cultures to chemical antiseptics coincides with their stability to some antibiotics (gramicidin and others). Gross variations may appear in the influence of subfungicidal doses of substances.  
-- M. I. Nakhimovskaya

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CZECHOSLOVAKIA / Microbiology. General Microbiology. F  
Geological Activity.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24013

Author : Bomar, Miroslav

Inst : Not given

Title : On the Problem of Studying Bactericidal  
Stability of Poly- $\epsilon$ -Caprolactam

Orig Pub : Chem. prumysl, 1957, 7, No 3, 153-155

Abstract : Microorganisms destroy poly- $\epsilon$ -caprolactam only  
if it is in a nutrient medium. Monomeric  $\epsilon$ -  
caprolactam inhibits the microorganisms in high  
concentrations and stimulates them in low  
concentrations. -- From the author's resume

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USSR / Microbiology. General Microbiology. Geological F  
Activity.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24017

Author : Karpovich, Ye. A.; Kostenich, N. A.;  
Viktorskii, A. P.

Inst : Belorussian Scientific Research Dermo-  
Venerological Institute

Title : The Influence of Phtivazide, Heptyl-Resorcin,  
and Hexyl-Resorcin on Cultures of Dermatophytes

Orig Pub : Sb. nauchn. rabot. Belorussk. n.-i. kozhno-  
venerol. in-t, 1957, 5, 322-323

Abstract : Hexyl-resorcin possesses clearly-expressed  
fungistatic and fungicidal properties with  
respect to Trichophyton and Achorion  
Schonleini.

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NORTH KOREA / Microbiology. General Microbiology. Geological Activity.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24018

Author : Lyu, Gyn-Man; Tsoi i Ren

Inst : Not given

Title : On Synthesis of Derivatives of Aryl Mercury and Their Bacteriocidity

Orig Pub : Choson yakkhak, 1957, No 3, 29-39

Abstract : No abstract given

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USSR / Microbiology. General Microbiology. Geological Activity.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24020

Author : Kosikov, K. V.; Iyerusalimskiy, N. D.

Inst : Academy of Sciences USSR

Title : Symposium on the Mechanism of Development of Toxistability in Microorganisms in London

Orig Pub : Izv. AN SSSR, Ser. biol., 1958, No 1, 118-120

Abstract : No abstract given

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POLAND / Microbiology. Antibiosis and Symbiosis.  
Antibiotics. Antibiosis.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24022

Author : Moycho, W.; Gromska, W.

Inst : Not given

Title : The Antagonistic Action of Streptococcus lactis  
on Bacillus subtilis and Pseudomonas fluorescens  
in Milk

Orig Pub : Acta microbiol. polon., 1956, 5, No 1-2, 267-270

Abstract : S. lactis in growth in mixed cultures in milk  
with B. subtilis and P. fluorescens suppresses  
the growth of B. subtilis and almost does not  
influence Pseudomonas. The inhibition is  
connected with the formation of antibiotics  
and not of lactic acid. Under the influence  
of an antibiotic, the relation of some bacteria

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POLAND / Microbiology. Antibiosis and Symbiosis.  
Antibiotics. Antibiosis.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24022

to Gram staining changed. -- From the authors'  
resume

Card 2/2

POLAND / Microbiology. Antibiosis and Symbiosis.  
Antibiotics. Antibiosis.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24023

Author : Lachowicz, Tadeusz

Inst : Not given

Title : Antagonism Between Strains of Colon Bacillus

Orig Pub : Med. doswiad. i mikrobiol., 1958, 10, No 1,  
35-40

Abstract : Antagonism was discovered between two serologically different strains of Escherichia coli. The mechanism of the antagonistic action was not clarified. -- From the author's resume

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USSR / Microbiology. Antibiosis and Symbiosis.  
Antibiotics. Antibiosis.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24026

Author : Kirakosyan, A. V.; Karimyan, R. S.

Inst : Not given

Title : Intraspecific and Interspecific Interrelations of Azotobacter

Orig Pub : Mikrobiol. sb. AN ArmSSR, 1958, vyp 9, 3-22

Abstract : The intraspecific and interspecific interrelations were studied in 280 cultures of azotobacter, isolated from various types of soil of the Armenian SSR (190 cultures of Azotobacter chroococcum, 64 of A. nigricans, 21 of A. agile and 3 of A. vinelandii). Antagonistic interrelations were discovered not only between the various types of azotobacter

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USSR / Microbiology. Antibiosis and Symbiosis.  
Antibiotics. Antibiosis.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24026

but also between the various strains of one and the same type. 32% of tested cultures manifested intraspecific antagonistic action. The largest percentage of intraspecific antagonists was discovered among the representatives of species of Az. chroococcum. The cultures of azotobacter with strong antagonistic action are usually antagonists with respect to the greatest number of cultures intraspecifically, as well as among other types of azotobacter, and are themselves, as a rule, rarely subject to antagonistic action of other cultures of azotobacter. No correlation was discovered between the type of soil and the presence of antagonistic properties in

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Antibiotics. Antibiosis.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24026

cultures of azotobacter isolated from it. --  
T. A. Kalininskaya

Card 3/3

USSR / Microbiology. Antibiosis and Symbiosis.  
Antibiotics. Antibiosis.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24027

Author : Mal'tseva, N. M.

Inst : Not given

Title : The Interrelations of Azotobacter with Bacillus mycoides

Orig Pub : Mikrobiol. zh., 1957, 19, No 4, 30-34

Abstract : From various soils of the Ukrainian SSR, 31 strains of B. mycoides were isolated, of which 21 strains inhibited the growth of azotobacter. 2 strains stimulated it, and the rest did not influence it. The combined cultivation of azotobacter with B. mycoides induced a decrease of the nitrogen-fixing activity of azotobacter. On the basis of the

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Antibiotics. Antibiosis.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24027

study of the properties of active substance produced by B. mycoides, which inhibits the growth of azotobacter, the author arrives at the conclusion that it is a polypeptide. --  
T. A. Kalininskaya

Card 2/2

USSR / Microbiology. Antibiosis and Symbiosis.  
Antibiotics. Antibiosis.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24028

Author : Afrikyan, E. K.; Tumanyan, V. G.

Inst : Not given

Title : The Antagonistic Action of Soil Micro-  
organisms on Cultures of Bacterium Radicicola

Orig Pub : Izb. AN ArmSSR. Biol. i s.-kh. n., 1958, 11,  
No 2, 37-46

Abstract : Various degrees of antagonistic action of  
actinomyces, sporogenous and non-sporogenous  
bacteria with respect to B. radicicola (BR)  
were established. It was shown that the  
strongest antagonists to BR are found among  
the bacilli of the group Bac. subtilis-mesen-  
tericus and Bac. circulans-polymyxa, and among

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USSR / Microbiology. Antibiosis and Symbiosis.  
Antibiotics. Antibiosis.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24028

the actinomyces in Act. griseus and Act.  
globisporus. The sensitivity of various cul-  
tures of BR to the action of antagonists is  
various, and this index may be utilized in  
the systematics of ecological strains of BR.  
-- A. G. Kuchayeva

Card 2/2

POLAND / Microbiology. Antibiosis and Symbiosis.  
Antibiotics. Antibiosis.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24034

Author : Mordarski, Marian; Jedrzejewska-Tkaczowa,  
Alicja; Harasymowicz, Maria

Inst : Not given

Title : Antibacterial Properties of Actinomyces:  
II. Antagonistic Action of Actinomyces on  
the Growth of Other Microorganisms

Orig Pub : Arch. immunol. i terap. doswiadc., 1957, 5,  
231-248

Abstract : Antagonistic properties of 6601 strains of  
actinomyces were studied. The tested micro-  
organisms were planted on dishes with an  
8-16-day-old culture of actinomyces. 76.8%  
of strains possessed antagonistic properties.

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Antibiotics. Antibiosis.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24034

Many cultures turned out to be antagonists  
of Candida albicans and dysentery bacteria.  
-- M. I. Nakhimovskaya

Card 2/2

USSR / Microbiology. Antibiosis and Symbiosis.  
Antibiotics. Antibiosis.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24038

Author : Isakova, N. P.

Inst : All-Union Academy of Agricultural Sciences  
imeni V. I. Lenin

Title : New Variation of Bacterium of the Type Bac.  
cereus Frankland, Pathogenic for Insects

Orig Pub : Dokl. VASKHNIL, 1958, No 3, 26-27

Abstract : No abstract given

Card 1/1

USSR / Microbiology. Antibiosis and Symbiosis.  
Antibiotics. Antibiosis.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24039

Author : Lizgunova, A. V.

Inst : Not given

Title : Rival Interrelations Between Normal Micro-  
flora of the Skin and Microbes Which Fall on  
it Temporarily

Orig Pub : Zh. mikrobiol., epidemiol. i immunobiol.,  
1958, No 2, 126

Abstract : No abstract given

Card 1/1

USSR / Microbiology. Microbes Pathogenic for Man and Animals. General Problems. F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24040

Author : Vershigora, A. Ye.

Inst : Not given

Title : Hermetic Chamber for Experimental Work with Bacterial Aerosols

Orig Pub : Zh. mikrobiol., epidemiol. i immunobiol., 1958, No 6, 105-108

Abstract : A description is given of a chamber with dimensions of 120 x 80 x 70 cm, constructed of sheet metal and divided by partitions into three parts, 200 l. each. In each part there is a window for observations and 2 hermetically-sealing openings. In the compartments, equal concentrations of bacterial aerosols

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USSR / Microbiology. Microbes Pathogenic for Man and Animals. General Problems. F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24040

are created, which permit the conducting of three parallel experiments. The chamber is meant for the study of kinetic properties of bacterial aerosols in the dust and drip phase, and for the evaluation of the effectiveness of catching bacteria by means of various devices. The chamber can easily be further equipped for the work with pathogenic bacteria. -- V. V. Vlodavets

Card 2/2

BULGARIA / Microbiology. Microbes Pathogenic for Man and Animals. General Problems. F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24042

Author : Pisarev, S. I.; Yefremova, A.; Kiprov, D. I.

Inst : Medical Institute of Bulgaria

Title : Serological and Bacteriological Investigations in Experimental Myocarditis in a Dog

Orig Pub : Izv. Med. in-ti. Bolg. AN, 1957, kn. 14,  
187-203

Abstract : No abstract given

Card 1/1

USSR / Microbiology. Microbes Pathogenic for Man and Animals. General Problems. F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24043

Author : Stoyanovskiy, A. F.; Prominskaya, T. V.;  
Zontovich, Ye. V.

Inst : Not given

Title : An Experiment of Practical Application of the  
Method of Agglutination of Microbe Association  
(Mixed Cultures) to the Solution of Various  
Problems

Orig Pub : Vrachebn. delo, 1957, prilozh., ll2

Abstract : The method is based on the discovery in microbe associations (rinsing of culture) of specific antigens-causative agents of intestinal infections or para-agglutinating strains of intestinal bacteria corresponding to them.

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USSR / Microbiology. Microbes Pathogenic for Man and  
Animals. General Problems.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24043

It gives an idea of the degree and the  
freshness of epidemiologically dangerous  
pollution of various objects of external  
environment (beaches, well water, beverages).  
The application of the method along with the  
titer of coli, enables one to diagnose  
relatively quickly the presence of fresh  
fecal pollution. -- G. Ye. Frumkina

Card 2/2

USSR / Microbiology. Microbes Pathogenic for Man and  
Animals. General Problems.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24045

Author : Kiyashov, A. P.

Inst : Not given

Title : The Influence of a 3% Solution of Zinc  
Sulfate on Pathogenic Flora of Glove Juice

Orig Pub : Khirurgiya, 1958, No 2, 107-111

Abstract : The bactericidal action of ZnSO<sub>4</sub> on glove  
juice was studied. In the first series of  
experiments, a culture of glove juice was  
made in test tubes with BPM. 90 experiments  
were performed with the glove juice of 228  
surgeons-participants in the operation. The  
average duration of surgery was 47 min. Be-  
fore surgery, the hands were treated with

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USSR / Microbiology. Microbes Pathogenic for Man and F  
Animals, General Problems.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24045

warmed 3% solution of ZnSO<sub>4</sub>; the gloves were sterilized. The average percentage of sterility (absence of growth) was 67.9. In the second series of experiments, cultures were made on APM and the number of grown colonies was computed. The average number of grown colonies was 2.5. In both experiments, the cultures were grown under 37° in the course of 3 days. Presurgical treatment of hands with ZnSO<sub>4</sub> is recommended. -- V. N. Roykhel'

Card 2/2

RUMANIA / Microbiology. Microbes Pathogenic for Man F  
and Animals. General Problems.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24048

Author : Dimitriu, Ofelia; Micu, Dumitru

Inst : Not given

Title : Hemocultures of L Forms

Orig Pub : Studii si cercetari inframicrobiol., microbiol.  
si parasitol., 1957, 8, No 2, 289-296

Abstract : In 8 cases, blood cultures of 110 patients with hypertension, septic endocarditis, undetermined subfibrile conditions, subjected to therapeutic treatment or treatment with antibiotics gave, in a broth with 2% of glucose, a growth in the shape of a small cloud from which, in passages on solid serum, media cultures of L-forms (peculiar character of

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RUMANIA / Microbiology. Microbes Pathogenic for Man and Animals. General Problems.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24048

colonies, morphologically-large balls) were isolated. The original cultures in broth are kept for the duration of 30 days, and subcultures to solid media for 10-12 days. -- From the authors' resume

Card 2/2

USSR / Microbiology. Microbes Pathogenic for Man and Animals. General Problems.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24051

Author : Busygina, N. G.  
Inst. : L'vov Scientific Research Institute for  
Protection of Mother and Child  
Title : Microflora of Pus and Breast Milk in Post-natal Mastitis

Orig Pub : Sb. nauchn. rabot L'vovsk. n.-i. okhrany materinstva i detstva, 1954, vyp 1, 86-89

Abstract : From the pus in mastites, *Staphylococcus aureus* is most frequently (in 88%) isolated; which, in 80%, is determined in a pure culture. 96.4% of isolated *St. aureus* coagulated the plasma, 79.3% fermented mannite, and 57.4% induced hemolysis of rabbit erythrocytes. It

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Animals. General Problems.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24051

was established that in mastites the microflora in pus and milk is identical. From the breast milk and the skin of the nipples of healthy puerpera, staphylococci were also isolated, part of which possessed pathogenic properties. The author recommends the treatment of nipples with a mixture of alcohol with iodine for mastitis prophylaxis. --  
V. V. Vlodavets

Card 2/2

COMMUNIST CHINA / Microbiology. Microbes Pathogenic  
for Man and Animals. General Problems.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24057

Author : Wan, Kuo-T'ai; Hsu, Shih-Yung

Inst : Not given

Title : Analysis of 31 Cases of Bacterial Abscess  
of the Liver

Orig Pub : Chung-hua wai-k'e tsa-chih, 1958, 6, No 6,  
681-683

Abstract : No abstract given

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USSR / Microbiology. Microbes Pathogenic for Man and F  
Animals. General Problems,

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, №. 24059

Author : Artem'yeva, Ye;  
Inst : Moscow Pharmaceutical Institute  
Title : Microbe Pollution of Eye Drops Obtained from  
Moscow Pharmacies

Orig Pub : Nauchn. raboty stud. Mosk. farmatsevt, in-ta,  
1957, vyp 1, 99-100

Abstract : The bacterial pollution was studied of 5 samples of zinc eye drops - a 0.25% solution of zinc sulfate in distilled water. The total number of bacteria in 1 ml of drops, 7-18 hours after preparation, fluctuated between 8230 to 10,000 (in one case, total growth); in two cases, hemolytic flora were discovered,

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USSR / Microbiology. Microbes Pathogenic for Man and F  
Animals. General Problems.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, №. 24059

and in all cases - growth on Endo's culture. The introduction of the isolated cultures of bacteria into injured sclera of the eye of guinea pigs induced the development of an inflammatory process. -- V. V. Vlodavets

Card 2/2

USSR / Microbiology. Microbes Pathogenic for Man and F  
Animals. Bacteria. Hemophilus Bacteria.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24062

Author : Zakharova, M. S.; Paikina, N. A.

Inst : Not given

Title : A Nutrient Medium for Cultivation of Whooping Cough Microbes

Orig Pub : Materialy po obmeny ogyptom. Gl. upr. in-tov vaktsin i syvorotok M-va zdravookhr. SSSR, 1956, 2/52, 45-49

Abstract : Technical, acidic, first grade (GOST No.1211-41) casein is washed off with a 0.2% solution of acetic acid for 6-7 days, changing the solution 2-3 times daily, rinsed with distilled water, pressed out, and dried under 60-70°. In a glass container, 400 g. of casein, 400 ml.

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and Animals. Bacteria. Hemophilus Bacteria.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24062

of chemically-pure hydrochloric acid, and 200 ml. of distilled water are mixed. The mixture is autoclaved for 3 hours under 127°. After autoclaving, the hydrolysate is diluted with distilled water to twice the volume, filtered through paper, diluted again to three times the volume, and illuminated by activated carbon: 20 g. of carbon (activated, ligneous illuminating, Type A, GOST 4453-48) to 1 l. The mixture is boiled for 10 min. and filtered through linen. From 400 g. of casein, about 5 l. of hydrolysate are obtained, which may be preserved for a long time with 1% of chloroform under 5-7°. Yeast dialysate is prepared from fresh-bread pressed yeast. 1 kg. of yeast is

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Animals. Bacteria. Hemophilus Bacteria.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24062

mixed into 1 l. of distilled water, poured into a cellophane bag rinsed out with distilled water. For dialysis, the bag is submerged in an enameled pot with 2 l. of distilled water. Dialysis is conducted for 7 hours under 70-80°, then the contents of the pot are poured into a large bottle, which is filled up with chloroform and preserved under 5-7° up to 3 months. The contents of the medium: casein hydrolysate 170 ml, NaCl 2.5 g, KH<sub>2</sub>PO<sub>4</sub> 0.5 g, MgCl<sub>2</sub> 0.4 g, dissolving starch 1.5 g, CaCl<sub>2</sub> 0.01 g, FeSO<sub>4</sub> 0.01, CuSO<sub>4</sub> 0.05 g, cysteine 0.03 g, yeast dialysate 50 ml, agar-agar 25 g, activated carbon, 2 g, distilled water up to 1 l. (In prepared medium, the content of amine nitrogen is

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Animals. Bacteria. Hemophilus Bacteria.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24062

150-160 mg%).) In an enameled pot are mixed 170 ml. of casein hydrolysate and 600 ml. of water; they are neutralized to a pH of 7.0, then batches of NaCl, KH<sub>2</sub>PO<sub>4</sub> and MgCl<sub>2</sub> are introduced. The starch is previously dissolved. The other salts, cysteine, and yeast dialysate are added, in the above-mentioned sequence. The volume of the mixture is brought to 1 l. with distilled water, a pH of 7.3 is established, agar-agar is introduced, the mixture is brought to boil, activated carbon is added to it, and it is poured while stirring constantly into flasks or separating flasks, and sterilized under 110° for 30 min., then it is mixed well and poured into bottles.

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USSR / Microbiology. Microbes Pathogenic for Man and  
Animals. Bacteria. Hemophilus Bacteria.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24062

Secondary heating for melting is not recommended. The medium is black in color. It can be preserved in a ready state; with prevention of drying, up to 2 months. It is utilized for mass cultivation of whooping-cough microbes in the 1st phase in the preparation of whooping cough vaccine, and in the bacteriological diagnosis of whooping cough. L. V. Lugovaya

Card 5/5

COMMUNIST CHINA / Microbiology. Microbes Pathogenic for  
Man and Animals. Bacteria. Hemophilus  
Bacteria.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24063

Author : Ch'eng, Cheng-Jen; He, Ch'iu-Ming

Inst : Not given

Title : Adaptation of Haemophilus pertussis and its  
Practical Application

Orig Pub : Wei-shen-wu hsueh-pao, Acta microbiol. sinica,  
1957, 5, No 4, 411-416

Abstract : A culture of H. pertussis of phase I, growing poorly of nutrient media, was passed on a medium with starch. 2 subcultures were isolated, which were well adapted to growth on Bordet-Gengou culture medium with peptone. According to their biological properties, the subcultures

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COMMUNIST CHINA / Microbiology. Microbes Pathogenic for Man and Animals. Bacteria. Hemophilus Bacteria.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24063

did not differ from the original strain and gave a greater yield of vaccine.

Card 2/2

USSR / Microbiology. Microbes Pathogenic for Man and Animals. Bacteria. Hemophilus Bacteria.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24064

Author : Bochagova, D. I.  
Inst : Institute of Experimental Medicine, Academy of Sciences USSR

Title : On the Viability of Whooping Cough Bacillus in a Hydrolysate-Saline Medium and in Physiological Solution

Orig Pub : Yezhegodnik. In-ta eksperim. med. Akad. nauk SSSR, 1955, L., 1956, 309-313

Abstract : The viability of whooping cough bacillus (WB) was studied in physiological solution and in a solution of amino acids obtained in hydrolysis of casein. It was found that at room temperature and 5-6°, WB perished quickly

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Animals. Bacteria. Hemophilus Bacteria.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24064

during the first 30 min. in both media.  
Later WB perished slower, being preserved  
much better in a hydrolysate-saline medium.  
The thickness of WB suspension did not in-  
fluence the speed of their perishing. Heat-  
ing of a suspension of WB in physiological  
solution to 37°, speeded up the perishing of  
WB in direct proportion to their concentration,  
but little influenced a suspension of WB in  
a hydrolysate-saline medium. The author  
feels that for experimental infection of  
animals, it is better to utilize suspensions  
of WB in a liquid hydrolysate-saline medium.  
-- R. Sh. Al'tman

Card 2/2

USSR / Microbiology. Microbes Pathogenic for Man and  
Animals. Bacteria. Hemophilus Bacteria.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24065

Author : Osipova, P. V.  
Inst : Institute of Experimental Medicine, Academy  
of Sciences USSR

Title : On Characteristics of Whooping Cough Culture  
18323, Highly Virulent in Intracerebral  
Infection

Orig Pub : Yezhegodnik. In-t eksperim. med. AMN SSSR,  
1956, T.2 (M), 1957, 395-399

Abstract : A strain of H. pertussis 18,323 isolated  
by Kendrick and his co-workers was studied  
with respect to its cultural, antigenic pro-  
perties. Toxicity, ability to induce in-  
fectionary process under various methods of

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Animals. Bacteria. Hemophilus Bacteria.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24065

infection, and immunogenic properties of various vaccines in infection with this strain, were studied. It was found that the strain was differentiated from the usual cultures of *H. pertussis* of the 1st phase by its ability to multiply and to induce a pathological process in the brain of mice with introduction into the brain of 100-500 microbes, leading to the death of the animals on the 5-14th day.

Card 2/2

USSR / Microbiology. Microbes Pathogenic for Man and  
Animals. Bacteria. Hemophilus Bacteria.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24066

Author : Anatoliy, S. A.  
Inst : Institute of Experimental Medicine, Academy  
of Sciences USSR

Title : On Properties of Intensely-Multiplying Cul-  
tures of *H. pertussis*

Orig Pub : Yezhegodnik, In-ta eksperim. med. AMN SSSR,  
1955, L., 1956, 289-293

Abstract : The utilization of aeration in growing cul-  
tures in cellophane bags makes it possible  
to bring the concentration of live microbe  
cells to 8-12 bil. per 1 ml. of medium. The  
antigenic properties were studied of *H.*  
*pertussis* cultures, grown under conditions

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Animals. Bacteria. Hemophilus Bacteria.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24066

of aeration in a liquid hydrolysate-casein medium with 5% of yeast extract and 5% of horse serum ("AER"), in cellophane bags which contained a physiological solution of NaCl and which were submerged in liquid nutrient medium (Ts-1), and in cellophane bags which contained physiological solution with horse serum, which, in this case, had not been added to the surrounding medium (Ts-2). Cultures which grew on liquid medium without aeration, or cultures with hydrolysate-casein agar which contained 10% of horse blood, served as a control. The serums of rabbits which were immunized with live H. pertussis, agglutinated live cultures of AER, Ts-1, Ts-2 up

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USSR / Microbiology. Microbes Pathogenic for Man and  
Animals. Bacteria. Hemophilus Bacteria.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24066

to a titer of 25,600 or 12,800, or not less than the control suspension from rinsing. Boiled cultures of Ts-1 and Ts-2 were agglutinated to a considerably smaller titer (200-400) than the boiled rinse (6400) and the AER (3200). All the cultures grown under conditions of increased aeration, and the control cultures exhausted the anti-whooping cough serum in equal measure and possessed equal activity in complement fixation reaction. The toxicity of AER and Ts-1 cultures in intraperitoneal introduction to rats of 1 ml. of suspensions of rinsed microbes of various dimensions, turned out to be somewhat higher than that of the control culture from liquid

Card 3/4

USSR / Microbiology. Microbes Pathogenic for Man and  
Animals. Bacteria. Hemophilus Bacteria.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24066

medium and Ts-1. Preliminary experiments  
in the immunization of mice with cultures  
of AER, Ts-1 and Ts-2 showed that they had  
preserved their immunizing properties. --

D. V. Lugovaya

Card 4/4

USSR / Microbiology. Microbes Pathogenic for Man and  
Animals. Bacteria. Hemophilus Bacteria.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24067

Author : Fintiktikova, R. P.  
Inst : Kharkov Scientific Research Institute of  
Vaccines and Sera  
Title : Immunizing Activity of Various Whooping Cough  
Antigens in Experiment

Orig Pub : Tr. Khar'kovsk. n.-i. in-ta vaktsin i  
syvorotok, 1957, 24, 161-164

Abstract : Mice were immunized with live cultures of  
Hemophilus pertussis in coarse and smooth  
forms (CF and SF), as well as with the boiled  
vaccines and complete antigens, obtained  
from both these forms according to the  
method of Topli. Antigens of CF possessed

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Animals. Bacteria. Hemophilus Baoteria.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24067

the properties of an exo- and endotoxin, and antigens of SF only endotoxic properties. Live cultures, vaccines, and antigens of each form created good immunity with respect to the strains of the same form, and a more weakly expressed one with respect to the strains of the other form. Antigen CF protected the mice from death also when exotoxin H. pertussis was introduced. Mixture of antigens from CF and SF of H. pertussis and mixture of whooping cough anatoxin with boiled whooping cough vaccine, assured almost 100% survival of mice in the introduction into them of 1-2 Dlm of live culture, as well as of antigens of both forms, and of exotoxin

Card 2/3

USSR / Microbiology. Microbes Pathogenic for Man and  
Animals. Bacteria. Hemophilus Bacteria.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24067

H. pertussis; the control animals, immunized with whooping cough anatoxin, perished up to 100% at the introduction of live cultures of both forms and of antigen SF, and those immunized with boiled whooping cough vaccine at the introduction of dry exotoxin. Non-vaccinated mice perished 100% at the introduction of 1 Dlm of exotoxin, live cultures, and antigens of both forms. Preparations which contain a sufficient amount of exo- and endotoxin H. pertussis are quite valuable antigenically, and create reliable immunity, which it is necessary to consider in the preparation of preparations for active immunization against whooping cough. -- L. V. Lugovaya

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Animals. Bacteria. Hemophilus Bacteria.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24068

Author : Rozental', K. M.; Savel' vol'f, G. B.  
Inst : Institute of Experimental Medicine, AMS USSR  
Title : On Characteristics of Whooping-Cough  
Agglutinogen. On Immunogenic Properties of  
Agglutinogen

Orig Pub : Yezhegodnik. Inst eksperim. med. AMN SSSR,  
T.2 (M), 1957, 388-392

Abstract : Immunogenic properties of whooping-cough agglutinogen (A) of 1st phase microbes were evaluated. In the first series of experiments, mice were immunized subcutaneously with A and in parallel with boiled whooping-cough vaccine. The animals were infected by means of

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Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24068

inhalation. The results were computed according to the number of dead animals and the content of bacteria in their lungs. A turned out to be immunogenic, but immunization with whooping cough vaccine gave better indexes. In intraperitoneal immunization of mice with A, and subsequent intranasal infection, proofs were also obtained of good immunogenicity of A. In the second series of experiments was studied the preventive action of sera of rabbits which had been immunized with A and had agglutinated until the multiplication (1 : 1600) of whooping cough microbes. Sera, introduced to mice intranasally, protected them in intranasal

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Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24068

infection with live culture. However, the preventive properties of serum obtained in immunization with microbe suspension were higher. In the last series of experiments, the ability of A to extract preventive antibodies from sera which were obtained by means of immunization with the suspension of live culture, was determined. It was established that in utilizing great doses of A, the serum titer decreased 8 times and lost, to a considerable degree, its ability to immunize the mice in intranasal infection.

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Animals. Bacteria. Hemophilus Bacteria.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24069

Author : Chistovich, G. N.; Savel'vol'f, G. B.  
Inst : Institute of Experimental Medicine, AMN SSSR  
Title : On Immunological Identity of the So-Called  
"Toxin-Rinses" and "Thermolabile Endotoxins"  
of Hemophilus Pertussis

Orig Pub : Yezhegodnik. In-t eksperim. med. AMN SSSR,  
1956, T.2 (M), 1957, 393-395

Abstract : In the experiments on the neutralization of whooping cough toxin (T), various antisera (A) were studied, obtained by means of immunizing rats and rabbits with various whooping cough antigens. A was mixed with T and was introduced into the peritoneal cavity

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Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24069

of mice. A to live whooping cough microbes of I and IV phases, as well as A against cultures boiled and treated with formalin and whooping cough hemagglutinin, were deprived of the neutralizing action along with A to stable whooping cough antigens, obtained according to the methods of Topli, Buavena and Westphal. Expressed crossed reactions of neutralization were obtained from A of the rabbit against "toxin-rinses", prepared according to the method of Trushina, and against "endotoxins" of Teyssye; Similar results were obtained in the introduction of the mixture of these A with T to rats intracutaneously, after first keeping it in the

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Animals. Bacteria. Hemophilus Bacteria.

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Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24069

thermostat for 10-120 min., and then in the freezer; cross prevention of necrotic action was observed. After its exhaustion of anti-endotoxic serum by "endotoxin" of Teyssye or "toxin-rinses", the serum was deprived of neutralizing action in respect to both T. The authors feel that the "endotoxin" of Teyssye and "toxin-rinses" of Trushina are identical in the immunologic respect.

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Animals. Bacteria. Hemophilus Bacteria.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24070

Author : Bayeva, Ye. A.

Inst : Not given

Title : The Study of Antigens Obtained from H.  
pertussis by the Modified Method of White and  
Westphal

Orig Pub : Zh. mikrobiol., epidemiol. i immunobiol.,  
1957, No 12, 71-74

Abstract : A strain of H. pertussis of the 1st phase  
was grown on casein-carbon agar in the course  
of 48 hours; the collected microbe mass was  
dried with the aid of acetone under room  
temperature. For obtaining an antigenic com-  
plex, the methods of White and Westphal were

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Animals. Bacteria. Hemophilus Bacteria.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24070

utilized. The toxic properties of the pre-  
paration, obtained according to the method  
of White, turned out to be weak: a dose of 5  
mg in subcutaneous introduction induced only  
the decrease of weight, and in intravenous  
introduction - death. It was not possible to  
increase the dose, since the solubility of  
the preparation is limited. In intracutaneous  
introduction to a rabbit of 10 mg of prepara-  
tion (4000 bil. microbe bodies), necrosis did  
not form. The antigenic properties were  
verified in serologic reactions and by means  
of immunization of rabbits. Serologically,  
the preparation turned out to be active. The  
protective properties of the preparation were

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Animals. Bacteria. Hemophilus Bacteria.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24070

studied by means of immunization of mice, with their subsequent infection with virulent whooping-cough culture. Mice immunized with the preparation of White, even in a dose of 0.4 and 0.6 mg (160 and 240 bil. microbe bodies) perished in infection! By the method of Westphal 2 fractions were obtained: an aqueous-layer fraction with pronounced toxic properties and serologically highly active, and a phenol-layer fraction with less expressed toxic properties and weak serological activity. The serological activity was checked by means of the reaction of precipitation with anti-whooping cough immune serum to the 1st phase of the microbe, by the reaction of precipitation

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Animals. Bacteria. Hemophilus Bacteria.

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Abs Jour : Ref Zhur- Biologiya, No 6, 1959, No. 24070

in agar, and complement fixation reaction. The antigenic properties of native fractions and fractions adsorbed by aluminum hydroxide were checked by the immunization of rabbits. The sera of rabbits did not contain agglutinins. Both fractions did not possess immunogenic properties (experiments on mice). The studied fractions did not possess allergic properties either. -- V. M. Roykhel'

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USSR / Microbiology. Microbes Pathogenic for Man and  
Animals. Bacteria. Hemophilus Bacteria.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24072

Author : Palant, B. L.; Fintiktikova, R. P.

Inst : Not given

Title : Immunizing Properties of Complete Antigens  
of H. pertussis Rendered Harmless by Specific  
Sera, Which Contain an Exo- and Endotoxin of  
This Microbe

Orig Pub : Zh. mikrobiol., epidemiol. i immunobiol.,  
1956, No 12, 12-17

Abstract : From 48-hour cultures of H. pertussis (HP),  
complete antigens were prepared according to  
the method of Topli (the method is described).  
The mixture of complete antigens of smooth  
and coarse forms contained exo- and endotoxin  
HP. The toxicity of the preparation was

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Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24072

neutralized by rabbit or sheep serum, ob-  
tained by means of immunizing the animals  
with exo- and endotoxin HP. In 1 ml. of  
preparation, which was called a subneutral  
mixture (SM), there were contained exo- and  
endotoxin, 15 Dlm of each, made harmless by  
the specific immune sera, and 0.25-0.5 Dlm  
of each one not rendered harmless. The mice  
were immunized by triple introduction of SM  
subcutaneously, with 7-day intervals. Non-  
immunized mice, and mice which received  
specific serum in doses equal to those con-  
tained in the utilized SM, served as control.  
The animals were infected 10-40 days after  
the last injection. 5 series of SM were

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Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No 24072

checked: 4 of them contained sheep serum and one contained rabbit serum. Mice immunized three times were unsusceptible to infection with 10 Dlm of HP, 20-30 Dlm of exotoxin, and 50 Dlm of endotoxin. The control animals perished in 100% of cases from 1-2 Dlm of the culture and exotoxin HP. Even a single immunization of mice with SM in a dose of 0.2 ml., assured the survival of 100% of animals in introduction to them of 1-2 Dlm of culture and exotoxin HP, while the non-immunized mice perished 100%. The immunizing properties of SM after 6 months of preservation under room temperature, decreased somewhat. However, the agglutinins titer in the sera of rabbits which

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Animals. Bacteria. Hemophilus Bacteria.

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Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24072

were immunized with SM, after  $5\frac{1}{2}$  months of preservation, reached 1: 12,800 - 1 : 25,000; 0.05 ml. of serum neutralized 1 Dlm of culture and exotoxin HP; 0.1 ml. of serum removed the necrotic reaction of skin in the introduction of the culture and toxin. SM of complete antigens, which contain exo- and endotoxin HP, and specifically immune sera, possess, in the opinion of the authors, considerable antigenic properties and may be a sufficiently-active preparation for immunization against whooping cough. -- L. V. Lugovaya

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USSR / Microbiology. Microbes Pathogenic for Man and  
Animals. Bacteria. Hemophilus Bacteria.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24077

Author : Zaglukhinskaya, Ye. N.  
Inst : Moscow Medical Institute  
Title : The Action of Mycerin in Experimental  
Whooping Cough Infection

Orig Pub : Uch. zap. 2-y Mosk. med. in-t, 1957, 7, 177-185

Abstract : The addition of mycerin (I) in the amount of 2.5 gamma/ml to the medium of Bordet-Gengou completely inhibited the growth of H. pertussis. In smaller concentrations of I (1.25-0.1 gamma/ml), the growth was considerably less than in control cultures in a medium without I. Mice, which were infected intranasally with a virulent culture of H. pertussis, and then

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Animals. Bacteria. Hemophilus Bacteria.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24077

received subcutaneously twice daily 1 mg of I for the duration of 6 days, survived in 100% of cases; smaller doses of I only delayed the time of death of mice, as compared with control mice. I protected the animals from death only under the condition that the treatment had started not later than 24 hours after infection. Isolating H. pertussis from the lungs of mice which were treated with I was almost never successful while cultures from the lungs of untreated animals gave complete growth. The absence of a toxic action of I in the dose utilized (2 mg) was shown.  
-- M. A. Gruzman

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COMMUNIST CHINA / Microbiology. Microbes Pathogenic for F  
Man and Animals. Bacteria. Hemophilus  
Bacteria.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24082

Author : Chang, K'uang-Hou; Yu, Yung-Ch'uang

Inst : Not given

Title : A Study of the Growth Factors of Haemophilus influenzae

Orig Pub : Wei-shen-wu hsueh-pao, Acta microbiol. sinica,  
1958, 6, No 1, 8-14

Abstract : It was found that blood contains an inhibitor for the V-factor of growth of H. influenzae. This inhibitor is destroyed in heating of blood at 75-100° for the duration of 5-10 min. Liver broth that contains a definite amount of coenzyme I and hemin, which act as V- and

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COMMUNIST CHINA / Microbiology. Microbes Pathogenic for F  
Man and Animals. Bacteria. Hemophilus  
Bacteria.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24082

X-factors respectively, may serve for H. influenzae cultivation without the addition of blood. -- From the authors' resume

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Animals. Bacteria. Anaerobic Bacilli.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24084

Author : Chernaya, L. A.; Sakhnovskaya, G. K.  
Inst : L'vov Scientific Research Institute of  
Epidemiology, Microbiology and Hygiene  
Title : The Problem of Tetanus During Peace Time

Orig Pub : Sb. nauchn. rabot. L'vovsk. n.-i. in-t  
epidemiol., mikrobiol. i gigiyeny, 1957,  
vyp 2, 157-165

Abstract : On the basis of the material from four  
Western oblasts of the Ukrainian SSR for the  
last few years, it was shown that the mortality  
due to tetanus exceeds the mortality due to  
dysentery, scarlet fever, measles, and  
diphtheria; the lethality in tetanus is equal

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Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24084

to 35.8%. In 84.8% of cases, a rural popula-  
tion was stricken, while 86.3% of the disease  
rate occurred in April-October, i.e., during  
the period of agricultural work. In the  
majority of cases the tetanus disease affect-  
ed the kolkhozniks or the children (agricul-  
tural or household traumatism). A parallelism  
was noted between the tetanus disease rate of  
the population and the infection of the soil  
with the spores of *Bacillus tetani*. The  
authors recommend compulsory active immuniza-  
tion of the population in epidemic foci. --  
V. V. Vlodavets

Card 2/2

USSR / Microbiology. Microbes Pathogenic for Man and  
Animals. Bacteria. Anaerobic Bacilli.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24088

Author : Kolesnikova, M. Kh.; Sokolov, S. K.

Inst : Not given

Title : Utilization of the Flocculation Reaction for  
Study of Certain Properties of Tetanus  
Antigens and Titration of Anti-Tetanic Sera.  
Report II. Utilization of the Flocculation  
Reaction for Titration of Anti-Tetanic Sera

Orig Pub : Zh. mikrobiol., epidemiol. i immunobiol.,  
1958, No 5, 44-49

Abstract : Report I, see RZhBiol., 1958, 90952

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USSR / Microbiology. Microbes Pathogenic for Man and  
Animals. Bacteria. Anaerobic Bacilli.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24091K

Author : Pletsityy, D. F.

Inst : Not given

Title : Experimental Study of Pathogenesis of  
Tetanus Intoxication

Orig Pub : Medgiz, 1958, 143 str., ill.

Abstract : No abstract given

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Animals. Bacteria. Anaerobic Bacilli.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24092

Author : Maksimovich, M. B.  
Inst : L'vov Scientific Research Institute of  
Epidemiology, Microbiology and Hygiene  
Title : The Sensitivity of Animals to Infection with  
Bac. perfringens as a Criterion of Their  
Fitness for Creation of a Model of Dormant  
Gas Infection  
Orig Pub : Sb. nauchn. rabot. L'vovsk. nauch. inst.  
epidemiol., mikrobiol. i gigiyeny, 1957,  
vyp 2, 192-195

Abstract : The work was conducted on 172 experimental  
animals. In experiments on mice, it was not  
possible to induce gas infection by means of

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Animals. Bacteria. Anaerobic Bacilli.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24092

subcutaneous introduction of 30-150 bil.  
microbe bodies, emulsified in 0.5 ml. of  
lanolin. Bac. perfringens were discovered  
in the organs of infected mice. Subsequent  
provocation (introduction of lanolin-microbe  
suspension intramuscularly, prolonged irradia-  
tion of the animal with infra-red rays,  
introduction of 2.5% CaCl<sub>2</sub> into the focal  
region) also did not induce a flare-up of  
dormant infection. In experiments on rabbits,  
the introduction of 50 bil. of microbe bodies  
with 2 ml. of lanolin, produced foci of dor-  
mant infection. Subsequent provocation in-  
duced aggravation; however, death of the  
animals did not take place. The introduction

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Animals. Bacteria. Anaerobic Bacilli.

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Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No 24092

of 100 bil. microbe bodies induced a typical gas infection. It was demonstrated that the creation of foci of dormant infection increases the titer of antitoxin in the blood of rabbits. In guinea pigs the introduction of 10 bil. microbe bodies, emulsified in lanolin, created the picture of dormant infection; furthermore, a part of animals perished. Greater doses induced death of guinea pigs 24-48 hours after the introduction. The author feels that guinea pigs are more sensitive to the introduction of Bac. perfringens than are mice and rabbits, and that they are the most fitting for the creation of a model of dormant gas infection. -- V. M. Roykhel'

Card 3/3

USSR / Microbiology. Microbes Pathogenic for Man and  
Animals. Bacteria. Anaerobic Bacilli.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24094

Author : Ryabchikova, V. P.  
Inst : L'vov Scientific Research Institute of  
Epidemiology, Microbiology and Hygiene  
Title : On the Action of Penicillin in Experimental  
Gas Infection Induced by Bac. sporogenes

Orig Pub : Sb. nauchn. rabot. L'vovsk. n.-i. in-t  
epidemiol., mikrobiol. i gigiyeny, 1957,  
vyp 2, 185-187

Abstract : Mice were infected with Bac. sporogenes,  
strain Weinberg, Staph. aureus strain  
No. 209 and their combinations. Triple  
introduction of 500 units of penicillin  
sharply decreased the percentage of death of

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USSR / Microbiology. Microbes Pathogenic for Man and Animals. Bacteria. Anaerobic Bacilli.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24094

mice from 66% to 6% in infection with Staph. aureus only, and had a small influence on the survival of mice infected with Bac. sporogenes. In infection of mice with Bac. sporogenes in combination with staphylococcus, the triple introduction of penicillin decreased the mortality of mice from 94% to 62%, which is explained mainly by the action of antibiotics on Staph. aureus. -- V. V. Vlodavets

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USSR / Microbiology. Microbes Pathogenic for Man and Animals. Bacteria. Anaerobic Bacilli.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24095

Author : Vygodchikov, G. V.; Volkova, Z. M.; Zelevinskaya, S. A.; Larina, I. A.

Inst : Not given

Title : The Significance of Antitoxic and Antibacterial Factors in Active Immunity Against Experimental Gas Gangrene Induced by B. perfringens

Orig Pub : Zh. microbiol., epidemiol. i immunobiol., 1957, 10, 120-125

Abstract : Animals were immunized with a concentrated, purified, sorbed anatoxin (CSA) of B. perfringens, with various protein fractions of microbe bodies of B. perfringens of type

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Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24095

"A", obtained according to the method of Kholchey, and a mixture of anatoxin with microbe fractions, I microbe fraction, which contained traces of toxin, induced the formation of an insignificant amount of antitoxin and agglutinins and a considerable amount of precipitins and complement-fixation antibodies. II and III microbe fractions, which did not contain toxin, did not induce the accumulation of antitoxin. The majority of animals of these groups turned out to be resistant to infection with 1 Dcl of spore culture of *B. perfringens*, that is, as a result of immunization with microbe fractions, antibacterial immunity had developed. In

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Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24095

immunization with CSA separately, or in a mixture with protein microbe fractions of antitoxin and bacterial antibodies formed in all rabbits. All rabbits turned out to be resistant to infection with a lethal dose of spore culture of *B. perfringens*. According to the authors, the antitoxin is the basic defensive factor in immunity against gas gangrene induced by *B. perfringens*. Antibacterial factors play a secondary role. --

E. R. Paley

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Animals. Bacteria. Anaerobic Bacilli.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24096

Author : Cherkas, G. P.

Inst : Not given

Title : A Method of Preparation of a Preparation For  
Active Immunization Against Cl. perfringens  
and oedematiens

Orig Pub : Zh. mikrobiol., epidemiol. i immunobiol.,  
1958, No 7, 60-65

Abstract : No abstract given

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USSR / Microbiology. Microbes Pathogenic for Man and  
Animals. Bacteria. Anaerobic Bacilli.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24097

Author : Blagoveshchenskiy, V. A.; Ispolatovskaya, M. V.

Inst : Not given

Title : The Concentration and Purification of  
Anatoxin Cl. histolyticus

Orig Pub : Zh. mikrobiol., epidemiol. i immunobiol.,  
1958, No 5, 91-94

Abstract : No abstract given

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USSR / Microbiology. Microbes Pathogenic for Man and  
Animals. Bacteria. Anaerobic Bacilli.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959. No. 24098

Author : Maksimovich, M. B.

Inst : L'vov Scientific Research Institute of  
Epidemiology, Microbiology and Hygiene

Title : Specific Prophylaxis of Flare-Ups of an  
Experimental Dormant Infection Induced by  
Bac. perfringens

Orig Pub : Sb. nauchn. rabot. L'vovsk. n.-i. in-t  
epidemiol., mikrobiol. i gigiyeny, 1957,  
vyp 2, 206-212

Abstract : A model of dormant infection with Bac. per-  
fringens with its subsequent provocation  
after 1½-2 months was created with guinea pigs  
and rabbits. The introduction, before

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Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24098

provocation, of 100 AU of antiperfringens  
serum to guinea pigs weighing 400-450 g.,  
protected 50% of the animals from gas gan-  
grene; 150 AU protected 75% of animals, and  
300 AU, 22 guinea pigs out of 23. Analogous  
results were obtained in rabbits weighing 2½  
kg. to each of which 1800 AU of antiper-  
fringens serum was introduced. Specific serum  
does not protect the animals in subsequent  
provocations of dormant infection; also it  
does not influence the changeability of  
bacteria and their dissemination in the  
organism. -- V. V. Vlodavets

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YUGOSLAVIA / Microbiology. Microbes Pathogenic for Man and Animals. Bacteria. Anaerobic Bacilli.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24099

Author : Zaharija, I.; Zelenka, P.

Inst : Not given

Title : Bovine Enterotoxemia Induced by Cl. perfringens

Orig Pub : Veterin. arh., 1958, 28, No 1-2, 17-22

Abstract : 2 cases of a disease of cows with characteristic symptoms of enterotoxemia are described. After the death of animals, Clostridium perfringens type A and Cl. septicum in one cow and a pure culture of Cl. perfringens type A in the other were isolated from the spleen. The authors assume that Cl. septicum penetrated into the spleen after the

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Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24099

death of the animals. Cases described in the literature of enterotoxemia in domestic animals and men conditioned by Cl. perfringens, are cited. -- V. V. Vlodavets

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Animals. Bacteria. Anaerobic Bacilli.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24100

Author : Kagan, F. I.; Kolesova, A. I.  
Inst : State Scientific-Control Institute of  
Veterinary Preparations  
Title : Study of the Etiology of Bradsot-like Diseases  
of Sheep

Orig Pub : Tr. Gos. nauchno-kontrol'n. in-ta vet.  
preparatov, 1957, 7, 211-216

Abstract : In the Azerbaydzhan SSR, a farm was investigated where unfavorable conditions prevailed in respect to Bradsot and infectious enterotoxemia. The mortality of sheep took place despite the carrying out of vaccinations with bivalent formol-aluminous vaccine,

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Animals. Bacteria. Anaerobic Bacilli.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24100

prepared against these two infections. The death of animals took place, as a rule, 15-30 min. after the onset of the disease. The clinical picture and pathological-anatomical data are described. From fresh carcasses of 14 animals, cultures were made from parenchymatose organs, heart, abomasum, small and large parts of the intestines. Isolation of *B. perfringens*, *B. oedematiens*, *B. gigas*, *V. septique*, *B. sporogenes*, *B. sordelli* in pure or mixed culture, showed that a mixed infection induced by various anaerobic causative agents took place at the farm.

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F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No 24101

Author : Kagan, F. I.; Kolesova, A. I.  
Inst : State Scientific-Control Institute of Veterinary Preparations

Title : Results of Tests of Polyvalent Concentrated Aluminum Hydroxide Vaccine Against Bradsot, Enterotoxemia of Sheep, and Dysentery of Lambs

Orig Pub : Tr. Gos. nauchno-kontrol'n. in-ta vet. preparatov, 1957, 7, 217-224

Abstract : From a mixture of cultures of Vibrio septicus, Cl. oedematiens and Cl. perfringens of type B, 7 series of vaccines were prepared, and adsorbed on hydroxide of aluminum, to be used

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F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24101

against bradsot, infectious sheep enterotoxemia, and lamb dysentery. All the series of the vaccine turned out to be sterile, harmless, and active and preserved their properties for the duration of 13 months. 18-20 days after a single vaccination, the rabbits turned out to be protected from infection with a lethal dose of V. septicus, Cl. oedematiens, Cl. perfringens of type B or C. The sheep, immunized twice with 2 or 3 ml. of vaccine with an interval of 25 days, were infected after 4 months with a lethal dose of one of the virulent cultures of the above-named microbes. All vaccinated sheep survived. Lambs, born from vaccinated sheep, acquired immunity

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Animals. Bacteria! Anaerobic Bacilli.

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Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24101

to Cl. perfringens of type B after feeding with mothers' milk. The testing of vaccine against bradsot and sheep enterotoxemia and lamb dysentery on an unsafe farm resulted in a 16 times lesser mortality as compared with the control group. In a study of the etiology of the disease, mixed infection was established and the following anaerobic causative agents were isolated: B. gigas, V. septicus, Cl. perfringens, Cl. oedematiens, Cl. sordellii and Cl. sporogenes. -- G. Ye. Frumkina

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NORTH KOREA / Microbiology. Microbes Pathogenic for Man and Animals. Bacteria. Anaerobic Bacilli.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24102

Author : Ten. Syn Pkhar  
Inst : Not given  
Title : Experimental Investigation of Immunity in Emphysematose Carbuncle. 1. Experiment of Infection and Immunization of Guinea Pigs with Consideration of the Place of Vaccination. 2. The Immunogenicity of the Vaccine

Orig Pub : Nonop kvakhak enguvon khakio, Vestn. n.-i. in-ta s.-kh., 1958, 3, No 1, 63-71

Abstract : No abstract given

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USSR / Microbiology. Microbes Pathogenic for Man and  
Animals. Bacteria. Anaerobic Bacilli.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24105

Author : Kovtunovich, L. G.

Inst : Not given

Title : Study of a New Method of Finding Toxin B.  
botulinus

Orig Pub : Zh. mikrobiol., epidemiol. i immunobiologii,  
1957, No 8, 84-90

Abstract : Experimental checking was conducted of the  
method of fast finding of botulin toxin (BT)  
according to the change of the phagocytic  
index with respect to staphylococci in the  
presence of BT, proposed by Minervin (Zh.  
mikrobiol., epidemiol. i immunobiol., 1955,  
No 5, 48; 1956, No 6, 44). The experiments

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Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24105

were performed with BT of type A. It was  
shown that by this method it is possible in  
the course of 1-3 hours to find and typify  
small amounts of BT; the method turned out  
to be more sensitive than the biological  
test on white mice. It was possible to  
isolate the toxin in the blood of infected  
white mice, in the blood of sick humans as  
well as in infected products. However, the  
author notes that even in strict compliance  
with all methodological instructions, con-  
flicting results sometimes occur and he  
recommends to retain the parallel exposure  
of BT in mice. -- Yu. Z. Gendon

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USSR / Microbiology. Microbes Pathogenic for Man and  
Animals. Bacteria. Anaerobic Bacilli.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24106

Author : Gendon, Yu. Z.

Inst : Not given

Title : Study of Botulin Antigens and Antisera by  
Means of Zonal Electrophoresis and Diffusion  
Precipitation in Agar

Orig Pub : Zh. mikrobiol., epidemiol. i immunobiol.,  
1958, No 2, 95-100

Abstract : Investigation of 55 series of botulin toxins  
of type A, showed that the toxins obtained  
in cellophane bags were in regard to the  
amount of DLm (for a mouse) 10-40 times more  
active than the simple toxins, and contained  
in 1 ml. up to 60 mil. DLm while the usual

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Animals. Bacteria. Anaerobic Bacilli.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24106

Toxins contained 60-200 thousand DLm; the  
toxins possessed high flocculation activity,  
and gave the reaction of ring precipitation  
even in dilution to 14-16 times; there is  
contained in them about twice as little amine  
and total N than in the usual toxins. By  
the method of diffusion precipitation on agar,  
it was discovered that in toxins obtained in  
cellophane bags, there are less ballast  
antigenic fractions than in the usual toxins,  
and the fraction which is connected with the  
proteins of nutrient medium is absent. By  
means of preparative electrophoresis on fil-  
ter paper, it was shown that the basic carrier  
of antitoxin in native sera is T-globulin

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Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24106

fraction! By the method of immunoelectrophoresis on agar it was discovered that in antibotulin antitoxic horse sera of type A, the precipitating bodies were contained in the same protein fractions as the antitoxic. In botulin toxins of type A 5, protein fractions are differentiated, of which only one is a basic carrier of the toxic inception: precisely that fraction is prevalent in toxins obtained in cellophane bags. Botulin toxins of type A, obtained in cellophane bags, are rendered wholly harmless by formalin, and anatoxins which are obtained thereby are more active than the usual ones, in antigenic as well as immunogenic properties.

-- Yu. G. Talayeva

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USSR / Microbiology. Microbes Pathogenic for Man and  
Animals. Bacteria. Anaerobic Bacilli.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24107

Author : Minervin, S. M.  
Inst : Not given  
Title : Results of Many Years of Observations in the  
Study of Botulism  
Orig Pub : Zh. mikrobiol., epidemiol. i immunobiol.,  
1957, No 10, 30-35

Abstract : On the basis of lengthy incubation period in a number of patients with botulism (B), cases of a repeated wave with clinical signs of botulism, the discovery of pure culture of causative agent in various organs of cadavers, and the late discovery of toxins in the organs of cadavers, the author regards B as

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Animals. Bacteria. Anaerobic Bacilli.

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Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24107

a toxic-infectious disease. Experiments on guinea pigs showed that toxin introduced in sublethal doses conditions the subsequent multiplication of microbes and the additional production by them of toxin in the organism itself; moreover, toxin sensitizes the organism not only to the microbe, but also to the toxin B. The same effect was produced by other nonspecific substances (extract of decaying protein, filtrates of toxigenic cultures of proteus vulgaris). Toxin B suppressed the phagocytic activity of leukocytes of blood (experiments in vitro and in vivo) and hystiocytes of healthy animals. The method of determination of the phagocytic

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Animals. Bacteria. Anaerobic Bacilli.

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Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24107

index may be utilized for early diagnosis of B in humans. The basic place of production of toxin in the organism is the gastro-intestinal tract, first of all the small intestine. A favorable influence on the course of B in guinea pigs and white mice was exerted by the utilization of caffeine and theophylline, apparently, as a result of their diuretic action. The best therapeutic effect was obtained by using antitoxin serum, introduced by a combined parenteral and enteral method. -- E. R. Paley

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F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24111

Author : Koroleva, G. A.; Matveyev, K. I.; Volkova, Z. M.

Inst : Not given

Title : Obtaining Bi- and Polyvalent Antibotulin Sera of Types A, B, C, E from Horses. Report II

Orig Pub : Zh. mikrobiol., epidemiol. i immunobiol., 1958, No 5, 83-87

Abstract : No abstract given

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HUNGARY / Microbiology. Microbes Pathogenic for Man and Animals. Bacteria. Mycobacteria. Mycobacterium Tuberculosis.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24123

Author : Schweiger, Otto

Inst : Not given

Title : Catalase Activity and Virulence of Isoniazid-Stable Mycobacteria Tuberculosis

Orig Pub : Tuberkulozis, 1958, 11, No 3-5, 81-84

Abstract : No abstract given

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USSR / Microbiology. Microbes Pathogenic for Man and  
Animals. Bacteria. Mycobacteria. Mycobacterium  
Tuberculosis.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24126

Author : Rudoy, N. M.

Inst : Not given

Title : Clinic of Tuberculosis in Adults. Clinical  
and Epidemiological Significance of the  
Stability of Mycobacteria Tuberculosis to  
Isoniazid (According to Materials in the  
Foreign Periodical Literature)

Orig Pub : Sovrem. probl. tuberkuleza, Sb. perev., obz.  
i ref. in- period. lit., 1958, No 4, 20-26

Abstract : No abstract given

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USSR / Microbiology. Microbes Pathogenic for Man and  
Animals. Bacteria. Mycobacteria. Mycobacterium  
Tuberculosis.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24129

Author : Aseyev, D. D.

Inst : Not given

Title : Materials on the Discovery of Drug-Stable  
Mycobacteria Tuberculosis in the Sputum of  
Patients with a Chronic Fibrous-Cavernous  
Process in the Lungs

Orig Pub : Probl. tuberkuleza, 1958, No 4, 14-20

Abstract : No abstract given

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USSR / Microbiology. Microbes Pathogenic for Man and  
Animals. Bacteria. Mycobacteria. Mycobacterium  
Tuberculosis.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24131

Author : Jurgelionis, A.

Inst : Not given

Title : Filtrable Forms of Mycobacteria Tuberculosis  
and Their Pathogenic Significance

Orig Pub : Sveikatos apsauga, 1958, No 2, 21-27

Abstract : No abstract given

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USSR / Microbiology. Microbes Pathogenic for Man and  
Animals. Bacteria. Mycobacteria. Mycobacterium  
Leprae.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24138

Author : Torsuyev, N. A.

Inst : Turkmenian Scientific Research Dermatological-  
Venerological Institute

Title : Materials for History of Leprosy in Turkmenia

Orig Pub : Tr. Turkm. n.-i. kozhno-venerol. in-ta, 1957,  
5, 204-209

Abstract : No abstract given

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GDR / Microbiology. Pathogenic Fungi and Actinomyces. F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No 24148

Author : Mampel, Eberhard

Inst : Not given

Title : The Significance of Phase-Contrast Microscopy  
for Examining Sputum for Fungi

Orig Pub : Z. ges. innere Medi., 1957, 12, No 17, 796-800

Abstract : Poorly-staining fungi elements in sputum are well visible when examining a native preparation in the modern phase-contrast microscope. Multiple series of investigations, necessary in the clinic of endogenic mycoses, are thereby considerably simplified. Instead of permanent preparations, microphotographs may be made. In the article, the principles and methods of phase-contrast microscopy are

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Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24148

expounded, and 4 pairs of microphotographs of fungi under the ordinary and the phase-contrast microscopes are included. --

M. A. Gruzman

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